



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,008	12/21/2001	Jon W. Hamilton	021971.0163	2384

1333 7590 06/30/2005

BETH READ
PATENT LEGAL STAFF
EASTMAN KODAK COMPANY
343 STATE STREET
ROCHESTER, NY 14650-2201

EXAMINER

HERNANDEZ, NELSON D

ART UNIT

PAPER NUMBER

2612

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/028,008

Applicant(s)

HAMILTON, JON W.

Examiner

Nelson D. Hernandez

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 14-24 is/are rejected.
- 7) ☒ Claim(s) 12,13,25 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Examiner acknowledges the amendments received on March 10, 2005. Claims 1-4, 9, 11, 12, 14-17 and 25 have been amended.

Response to Arguments

2. Applicant's arguments with respect to claims 1-4, 9, 11, 12, 14-17 and 25 have been considered but are moot in view of the new ground(s) of rejection.

Specification

3. Examiner acknowledges the changes made on the Specifications and the Abstract. Changes made are acceptable.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-3, 5, 6, 14-16, 18 and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedman, US Patent 5,499,294 in view of Camus, US Patent 6,594,399 B1.

Regarding claim 1, Friedman discloses a method for generating a digital image comprising: receiving an image at a camera (Fig. 3A: 11); generating a first digital image response to the image at the camera; generating a second digital image in

Art Unit: 2612

response the first digital image at the camera, the second digital image comprising an encrypted form of the first digital image; and storing the first and second digital images at the camera (Col. 5, line 49 – col. 6, line 30) however the encrypted form is not an encrypted image of the first digital image is a digital signature of the first digital image.

However, Camus discloses a method for generating a digital image comprising: receiving an image at a camera (Fig. 1: 10); generating a first digital image response to the image at the camera; generating a second digital image in response the first digital image at the camera (Col. 3, line 7-65), the second digital image comprising an encrypted image of the first digital image and not a digital signature of the first digital image (Col. 3, line 7-65; col. 4, lines 18-38) but does not explicitly disclose storing the first and second digital images at the camera.

Therefore, taking the combined teaching of Friedman in view of Camus as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Friedman by having the second digital image comprising an encrypted image of the first digital image and not a digital signature of the first digital image. The motivation to do so would have been to protect the entire image data from unauthorized users from viewing or access.

Regarding claim 2, the combined teaching of Friedman in view of Camus as applied to claim 1 teaches that the second digital image is an encryption of each bit of every pixel of the first digital image (See Camus, col. 3, line 7-65; col. 4, lines 18-38).

Regarding claim 3, the combined teaching of Friedman in view of Camus as applied to claim 1 teaches further communicating the second digital image to an

Art Unit: 2612

authentication center to permit verification of each bit of every pixel of the first digital image (Camus, col. 5, line 49 – col. 6, line 1; Friedman, col. 5, line 49 – col. 6, line 30).

Regarding claim 5, the combined teaching of Friedman in view of Camus as applied to claim 1 teaches generating the second image comprises encrypting the second image using a camera key associated with the camera (See Friedman, col. 5, line 49 – col. 6, line 30).

Regarding claim 6, the combined teaching of Friedman in view of Camus as applied to claim 1 teaches encrypting the second image within a predetermined time by teaching that the second image is encrypted prior to transmission to the authentication center (See Friedman, col. 5, line 49 – col. 6, line 30), wherein the time between generating the image and transmitting said image is considered the predetermined time.

Regarding claim 14, Friedman discloses a system for generating a digital image comprising: a digital camera (Fig. 3A: 11) having a memory; an application stored in the memory (Fig. 3B: 12C) and operable to: receive an image; generate a first digital image in response to the image; generate a second digital image in response to the first digital image, the second digital image comprising an encrypted form of the first digital image; and store the first and second digital images in the memory (Col. 5, line 49 – col. 6, line 30), however the encrypted form of the first digital image is a digital signature of the first digital image.

However, Camus discloses a method for generating a digital image comprising: receiving an image at a camera (Fig. 1: 10); generating a first digital image response to the image at the camera; generating a second digital image in response the first digital

Art Unit: 2612

image at the camera (Col. 3, line 7-65), the second digital image comprising an encrypted image of the first digital image and not a digital signature of the first digital image (Col. 3, line 7-65; col. 4, lines 18-38).

Therefore, taking the combined teaching of Friedman in view of Camus as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Friedman by having the second digital image comprising an encrypted image of the first digital image and not a digital signature of the first digital image. The motivation to do so would have been to protect the entire image data from unauthorized users from viewing or access.

Regarding claim 15, the combined teaching of Friedman in view of Camus as applied to claim 1 teaches that the second digital image is an encryption of each bit of every pixel of the first digital image (See Camus, col. 3, line 7-65; col. 4, lines 18-38).

Regarding claim 16, the combined teaching of Friedman in view of Camus as applied to claim 1 teaches further communicating the second digital image to an authentication center to permit verification of each bit of every pixel of the first digital image (Camus, col. 5, line 49 – col. 6, line 1; Friedman, col. 5, line 49 – col. 6, line 30).

Regarding claim 18, the combined teaching of Friedman in view of Camus as applied to claim 1 teaches that the application is further operable to encrypt the second image using a camera key associated with the camera (See Friedman, col. 5, line 49 – col. 6, line 30).

Regarding claim 19, the combined teaching of Friedman in view of Camus as applied to claim 1 teaches that the application is further operable to encrypt the second

Art Unit: 2612

image within a predetermined time by teaching that the second image is encrypted prior to transmission to the authentication center (See Friedman, col. 5, line 49 – col. 6, line 30), wherein the time between generating the image and transmitting said image is considered the predetermined time.

6. **Claims 4 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedman, US Patent 5,499,294 in view of Camus, US Patent 6,594,399 B1 and further in view of Krishnan, US Patent 6,405,316 B1.

Regarding claim 4, the combined teaching of Friedman in view of Camus does not teach the second digital image is an encryption entirely of the first digital image so that the second digital image is not smaller than the first digital image.

However, encrypting images form a digital image in a way that the size of the encrypted image is not smaller than the first digital image is well known in the art as taught by Krishnan (Col. 12, line 54 – col. 13, line 43).

Therefore, taking the combined teaching of Friedman in view of Camus and further in view of Krishnan as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the second digital image is an encryption entirely of the first digital image so that the second digital image is not smaller than the first digital image. The motivation to do so would have been to replace the original image with a code representing the encrypted image as suggested by Krishnan (Col. 12, line 54 – col. 13, line 43).

Regarding claim 17, the combined teaching of Friedman in view of Camus does not teach the second digital image is an encryption entirely of the first digital image so that the second digital image is not smaller than the first digital image.

However, encrypting images form a digital image in a way that the size of the encrypted image is not smaller than the first digital image is well known in the art as taught by Krishnan (Col. 12, line 54 – col. 13, line 43).

Therefore, taking the combined teaching of Friedman in view of Camus and further in view of Krishnan as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the second digital image is an encryption entirely of the first digital image so that the second digital image is not smaller than the first digital image. The motivation to do so would have been to replace the original image with a code representing the encrypted image as suggested by Krishnan (Col. 12, line 54 – col. 13, line 43).

7. **Claims 7 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedman, US Patent 5,499,294 in view of Camus, US Patent 6,594,399 B1 and further in view of Glass, US Patent 6,332,193 B1.

Regarding claim 7, the combined teaching of Friedman in view of Camus does not teach that generating the second image comprises encrypting the second image using a non-symmetric encryption algorithm.

However, Glass teaches an imaging system (Fig. 3) comprising a code generator for encrypting image data prior transmission to a network, wherein said encryption is performed with a non-symmetric algorithm (Col. 5, line 46 – col. 6, line 32).

Therefore, taking the combined teaching of Friedman in view of Camus and further in view of Glass as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a non-symmetric algorithm to encrypt the images prior transmission to a network. The motivation to do so would have been to enable transmission of encrypted image data between the camera and the authentication center more secure since the key for encrypting the image is different than the key for decrypting said image.

Regarding claim 20, the combined teaching of Friedman in view of Camus does not teach that the application is further operable to encrypt the second image using a non-symmetric encryption algorithm.

However, Glass teaches an imaging system (Fig. 3) comprising a code generator for encrypting image data prior transmission to a network, wherein said encryption is performed with a non-symmetric algorithm (Col. 5, line 46 – col. 6, line 32).

Therefore, taking the combined teaching of Friedman in view of Camus and further in view of Glass as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a non-symmetric algorithm to encrypt the images prior transmission to a network. The motivation to do so would have been to enable transmission of encrypted image data between the camera and the authentication center more secure since the key for encrypting the image is different than the key for decrypting said image.

Art Unit: 2612

8. **Claims 8-11 and 21-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedman, US Patent 5,499,294 in view of Steinberg, US Patent 6,587,949 B1.

Regarding claim 8, the combined teaching of Friedman in view of Camus does not teach associating an annotation with the first image.

However, Steinberg teaches an imaging system (Fig. 1) that encrypts the images taken prior to transmission to a host computer (Fig. 1: 16), wherein annotations are inserted into the image data prior to transmission (Col. 7, lines 7-54).

Therefore, taking the combined teaching of Friedman in view of Camus and further in view of Steinberg as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert annotations to the image data prior to encryption of the second image. The motivation to do so would help to verify the authenticity of images with questionable data as suggested by Steinberg (Col. 7, lines 7-54).

Regarding claim 9, the combined teaching of Friedman in view of Camus and further in view of Steinberg as applied in claim 8 teaches that the annotation is associated with the first image prior to generating the second digital image. Steinberg teaches that the annotations can be the date and time when the image was taken (Col. 7, lines 7-54). Therefore, grounds for rejecting claim 8 apply here.

Regarding claim 10, the combined teaching of Friedman in view of Camus and further in view of Steinberg as applied in claim 8 teaches that the annotation comprises embedded text (See Steinberg, col. 7, lines 7-54).

Regarding claim 11, the combined teaching of Friedman in view of Camus and further in view of Steinberg teaches as in claim 8. Therefore, grounds for rejecting claim 8 apply here.

Regarding claim 21, the combined teaching of Friedman in view of Camus does not teach that the application is further operable to associate an annotation with the first image.

However, Steinberg teaches an imaging system (Fig. 1) that encrypts the images taken prior to transmission to a host computer (Fig. 1: 16), wherein annotations associated with information of the first image, are inserted into the image data prior to transmission (Col. 7, lines 7-54).

Therefore, taking the combined teaching of Friedman in view of Camus and further in view of Steinberg as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert annotations associated with the first image to the second image data prior to encryption of the second image. The motivation to do so would have been to help to verify the authenticity of images with questionable data as suggested by Steinberg (Col. 7, lines 7-54).

Regarding claim 22, the combination of Friedman in view of Camus and further in view of Steinberg as applied in claim 21 teaches that the annotation is associated with the first image prior to generating the second digital image. Steinberg teaches that the annotations can be the date and time when the image was taken (Col. 7, lines 7-54). Therefore, grounds for rejecting claim 21 apply here.

Regarding claim 23, the combination of Friedman in view of Camus and further in view of Steinberg as applied in claim 21 teaches that the annotation comprises embedded text (See Steinberg, col. 7, lines 7-54).

Regarding claim 24, the combined teaching of Friedman in view of Camus and further in view of Steinberg teaches as in claim 21. Therefore, grounds for rejecting claim 21 apply here.

Allowable Subject Matter

9. **Claims 12, 13, 25 and 26** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 12 and 25, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest associating a serial number with the first image, which is not related to the camera key.

Friedman discloses a method for generating a digital image comprising: receiving an image at a camera (Fig. 3A: 11); generating a first digital image response to the image at the camera; generating a second digital image in response the first digital image at the camera, the second digital image comprising an encrypted form of the first digital image; and storing the first and second digital images at the camera (Col. 5, line 49 – col. 6, line 30) however the encrypted form is not an encrypted image of the first digital image is a digital signature of the first digital image, also teaches generating the

Art Unit: 2612

second image using a camera key associated with the camera (Col. 5, line 49 – col. 6, line 30).

Camus discloses a method for generating a digital image comprising: receiving an image at a camera (Fig. 1: 10); generating a first digital image response to the image at the camera; generating a second digital image in response the first digital image at the camera (Col. 3, line 7-65), the second digital image comprising an encrypted image of the first digital image and not a digital signature of the first digital image (Col. 3, line 7-65; col. 4, lines 18-38) but does not explicitly disclose storing the first and second digital images at the camera.

However, Friedman and Camus either alone or in combination fails to teach or reasonably suggest associating a serial number with the first image, which is not related to the camera key.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 2612

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact

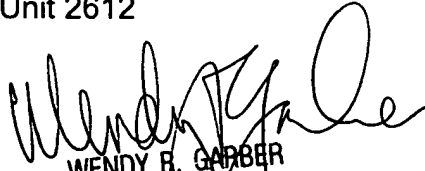
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson D. Hernandez whose telephone number is (571) 272-7311. The examiner can normally be reached on 8:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R. Garber can be reached on (571) 272-7308. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nelson D. Hernandez
Examiner
Art Unit 2612

NDHH
June 20, 2005


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600